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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,402	12/05/2003	Joseph C. Deaton	87141AEK	9577

7590 10/07/2005
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Patent Legal Staff
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EXAMINER

GARRETT, DAWN L

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 10/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/729,402

Applicant(s)

DEATON ET AL.

Examiner

Dawn Garrett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 and 23-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19, 23, 24 and 26-31 is/are rejected.
- 7) ☒ Claim(s) 25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/27/05; 7/25/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This Office action is responsive to the amendment dated July 25, 2005. Claims 29 and 30 have been amended. Claims 20-22 have been canceled. Claims 1-19 and 23-31 are pending.
2. The objection to claims 29-30 set forth in the last Office action (mailed April 22, 2005), paragraph 1 is withdrawn due to the amendment.
3. The rejection of claims 20-22 under 35 USC 102(e) as being anticipated by Thompson et al. (US 2004/0048101) is withdrawn due to the cancellation of these claims.
4. The terminal disclaimer filed on July 25, 2005 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U.S. Application No. 10/729,712 has been reviewed and is accepted. The terminal disclaimer has been recorded.
5. The provisional double patenting rejection of claims 1-31 over claims 1-8, 12, and 17-33 of Application No. 10/729,712 is withdrawn due to the terminal disclaimer filed July 25, 2005.

Claim Rejections - 35 USC § 103

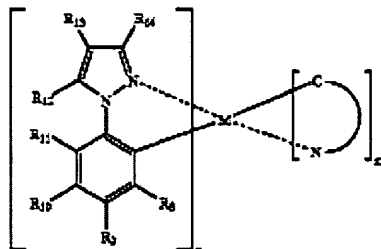
6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-19, 23, 24, 26, and 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson et al. (US 2004/0253478 A1). The provisional application

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60/457,012 filed prior to application 10/807,738, which is US publication 2004/0253478, is considered to support an obviousness rejection. Thompson et al. teaches emissive layers of an organic light emitting device may contain a metal complex according to formula



(see abstract). The “R” substituents may combine to form a cyclic group per the “fused aromatic group” of claim 1 (see par. 18). Furthermore, an “R” group may comprise an alkenyl group and further fused rings per instant claim 3 (see par. 17-18). The emissive layer may comprise a host material per claim 23 (see par. 40). The emissive layer may also comprise fluorescent material (see par. 40) per claim 28. Thompson et al. teaches the emissive layer may be tuned to a particular emission color by the selection of dopant per claim 26 (see par. 40). Thompson does not teach a specific amount of phosphorescent dopant to be placed into the emissive layer, but dopants are taught to affect overall emission color and efficiency. It would have been obvious to one of ordinary skill in the art to have combined the phosphorescent dopant with the host material in any ratio desired, because the experimental modification of this prior art in order to ascertain optimum operating conditions fails to render applicants’ claims patentable in the absence of unexpected results. *In re Aller*, 105 USPQ 233. A prima facie case of obviousness may be rebutted where the results of the optimizing variable, which is known to be result-effective, are unexpectedly good. *In re Boesch and Slaney*, 205 USPQ 215. Although the

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provisional application does not appear to exemplify a compound comprising a fused ring attached to the pyrazole ring, it would have been obvious to one of ordinary skill in the art at the time of the invention to have formed such a compound for the emissive layer, because Thompson teaches the substituent groups may join together to form rings.

8. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson et al. (US 2004/0253478 A1) in view of Friend (US 5,807,627). Thompson et al. fails to teach a filter may be added to the device to further affect the color emission of the device. Friend teaches a color filter may be added to a device to further tune color emission (see col. 2, lines 66-67). It would have been obvious to one of ordinary skill in the art at the time of the invention to have included a color filter in the Thompson device, because Friend teaches the added benefit of using a filter to tune the color of light emission of a device.

Allowable Subject Matter

9. Claim 25 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art fails to teach an organometallic compound as a light emitting material in an OLED as part of a polymer as set forth in claim 25.

Response to Arguments

10. Applicant's arguments filed July 25, 2005 have been fully considered but they are not persuasive. Applicant has not set forth clear evidence that a metal complex comprising a pyrazole with an attached pyrazole ring provides a needed advantage over the generally disclosed compounds in the art. The comparison data in the specification does not appear to compare a complex comprising a pyrazole ring without a fused aromatic group to a complex

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with pyrazole ring with an aromatic group fused to the pyrazole ring under the same conditions and in the same amounts within an emissive layer.


Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Tokito references shows phosphorescent complexes as part of a polymer, but does not show a complex with a pyrazole ligand.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dawn Garrett whose telephone number is (571)272-1523. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached at (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Dawn Garrett
Primary Examiner
Art Unit 1774

October 3, 2005